

GENDER IDENTITY AND PERCEPTIONS OF SEXISM:  
A LIBERATION PSYCHOLOGY PERSPECTIVE

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## Abstract

Three studies sought to assess cultural influences in gender identification, gender identity content, and perceptions of sexism. Study 1 examined the impact of taking an introductory women's studies course relative to a personality psychology course, while Studies 2 and 3 took place in the lab and manipulated factors thought to differ between the two courses in Study 1. For Study 1, cultural context influenced constructions of gender identity such that women's studies students were more likely to internalize women's struggles and recognize sexism than personality psychology students. Results indicate that identity content mediated the relationship between course and sexism perception. In Study 2, participants read about gender as a biological or a social construct. Contrary to hypotheses, reading about gender as a biological construct promoted sexism perception. In addition an interaction between level of identification and identity content emerged such that increased gender identification promoted sexism perception only for participants who construct their gender in terms of women's struggle. In Study 3, women exposed to Women's history facts perceived less racism and reported decreased internalization of struggle. Consistent with other studies, women who thought of gender in terms of struggle saw greater sexism in gendered traditions. These studies provide evidence of the need for content-based analyses of identity along with consideration of multiple forms of gender oppression.

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## **Gender Identity and Perceptions of Sexism**

### **A Liberation Psychology Perspective**

Modern day news media are rife with debates about the existence of sexism. Whether they concern the treatment of female political candidates (Seeyle & Bosman, 2008), disagreements over the validity of sexual assault accusations (Eligon, 2011), or any number of other topics, allegations of sexism maintain a regular presence in popular news coverage. Despite the prevalence of these charges, the heated debates that often accompany these reports reveal a lack of consensus about the validity and legitimacy of claims about gender bias. To the extent that social justice legislation, collective movements, or other varieties of transformative action depend on recognition of inequality, it is important to consider the sources of differences in perceptions of bias. In the current project I examine some of the factors that may promote or inhibit recognition or construction events as the product of sexism.

### **Broadening Conceptions of Bias**

In the past twenty-five years, social psychological scholars in the area of stereotypes, prejudice, and discrimination have produced significant work that has expanded traditional understandings of group-based bias. A particularly productive area of research has considered the extent to which “modern” forms of prejudice (McConahay, 1986; Swim, Aikin, Hall, & Hunter, 1995; Swim & Cohen, 1997) have taken the place of traditional, “old-fashioned” bias. In addition to this conceptual progression, researchers have also emphasized other nuanced distinctions between forms of bias. For example, in their work on ambivalent sexism, Glick & Fiske (1996) consider



the different consequences of hostile versus benevolent sexism. Hostile sexism—characterized by overtly negative attitudes towards women—has clear and anticipatable negative implications for women. Benevolent sexism, on the other hand, promotes superficially positive attitudes towards women, but these seemingly-positive beliefs (e.g., women are uniquely pure and ought to be put on a pedestal), ultimately serve to reinforce traditional power structures of male dominance, limiting women's potential and serving as a barrier to gender equality (Glick et al., 2000). Benevolent sexism predicts a number of relevant outcomes that hostile sexism does not, such as victim blaming in sexual assault (Abrams, Viki, Masser, & Bohner, 2003), and inhibited academic performance (Dardenne, Durmont, & Bollier, 2007).

People also vary in the extent to which they see hostile and benevolent sexism beliefs as damaging for women. Although most people recognize the straightforward harm in hostile sexist beliefs, there is less consensus about the harmful implications of benevolent sexist beliefs (Glick & Fiske, 2001). The difference of opinion on the impact of benevolent sexist attitudes, combined with the unique impact of benevolent sexism on women's experience, underscores the importance of considering how broader conceptions of bias can contribute to social justice goals. For example, social programs that take into account diverse forms of sexism in women's lives can provide more comprehensive and thus more effective services. By the same token, failing to take into account different understandings of bias can inadvertently inhibit social progress. When mainstream understandings of gender bias are limited to overtly hostile thoughts and actions, resources designed to promote women's

well-being will inevitably fall short of those goals as the negative impact of subtler or more benevolent forms of sexism remains unexamined.

Another area in which varied perceptions of bias can be seen is in the realm of education. Research on the pedagogy of discrimination has distinguished between different ways of teaching about issues of injustice (Adams, Edkins, Pickett, Lacka, & Cheryan, 2008; Pickett & Katzarska-Miller, 2008). This work distinguishes between inequality as an individual-level phenomenon, both in terms of the perpetrators and victims, and as a sociocultural process where bias is embedded within cultural systems. A sociocultural understanding of discrimination recognizes that discrimination can occur even in the absence of a clear perpetrator while traditional, individualistic understandings of bias inhibit such recognition. However, when students learn about inequality as a sociocultural phenomenon, they can better recognize the existence of systemic discrimination (Adams et al., 2008).

This line of research also differs from much work in the area of injustice in the operationalization of the phenomenon of interest. Rather than asking participants to indicate their endorsement of different biases, this work purports that an equally important level of analysis lies in the consideration of differences in recognition of different forms of bias. In other words, bias can be understood in terms of epistemologies rather than just attitudes. This distinction is important, particularly to the extent that discrimination stems from sources other than biased individuals. In addition, as discussed above, ameliorative social programs first require recognition of a problem. Therefore, in work that seeks to promote social justice outcomes, it is at least equally

important to consider how to better promote recognition of injustice as it is to consider individual attitudes.

### **Group Identity and Recognition of Bias**

As discussed above, people vary in the extent to which they recognize or construct certain types of events as the product of bias. In addition to variation in situational affordances for perception of bias, a number of personal characteristics also contribute to the likelihood that one will attribute events to discrimination. For example, individuals from historically oppressed groups are often more aware of and sensitive to instances of oppression in everyday life than individuals lacking oppressive histories (Feagin, 1991; Nelson, Adams, Branscombe, & Schmitt, 2010; Turner, 1993). This relationship may be due to a number of factors affecting these groups, such as stigma consciousness (Pinel, 1999), group-based rejection sensitivity (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002), and/or cultural mistrust (Adams & Salter, 2007; Nelson et al., 2010), all of which result from living in cultural worlds where oppression is a normal component of everyday life.

Just as those individuals belonging to historically oppressed groups may perceive racism for a variety of reasons, dominant group members' failure to recognize bias may also reflect a number of antecedents. For dominant group members, the connection between others' disadvantage and their own privilege is not always clear (Case, 2007; Powell, Branscombe, & Schmitt, 2005), reflecting the general invisibility of privilege in mainstream dialogues about inequality (McIntosh, 1990). In addition, dominant group members may also be motivated to deny discrimination to the extent that it

calls their own position into question. For example, White participants who receive a self-affirmation treatment identify greater racism in ambiguous events than those who do not receive an affirmation treatment, suggesting that racism denial results in part from ego defensiveness (Adams, Tormala, & O'Brien, 2006).

Besides categorical group membership, strength of group identification also plays an important role in perceptions of discrimination (Adams et al, 2008; Operario & Fiske, 2001; Phillips & Adams, 2009). Dominant group members who score high on measures of identification are less likely to make attributions to discrimination than those who score lower on these measures. For members of subordinate groups, increased identification is associated with greater perceptions of discrimination. These findings indicate that above and beyond membership in certain groups, attachment to or engagement with those groups influences willingness or ability to make attributions to discrimination.

Existing research on the relationship between identity and perception of discrimination falls victim to a common issue in social psychology. Namely, identity-based scholarship frequently focuses solely on quantitative measures of identification—that is, how strongly one identifies with a group or category—to the exclusion of other aspects of identity. However, recent work by identity researchers has reflected upon the need for multidimensional assessments of identity (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Leach et al., 2008; Roccas, Klar, & Liviatan, 2006; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). One such dimension is that of identity content, or what group membership means for individuals (Adams, Freyberg, Garcia, & Delgado-Torres 2006; Ashmore et al., 2004). Strength of identification with

specific categories holds little meaning without recognition of how individuals define that identity.

To the extent that group identities—through basic group membership, strength of identification, or variability in the meaning those identities hold—may promote better recognition of bias, research that considers the recognition of bias should also examine the inter-relationships of bias recognition with identification. In this regard, there exists a need for a theoretical perspective that accounts for both these phenomena, while also outlining potential antecedents. In the current project, I rely upon liberation psychology to further illuminate these relationships.

### **A Liberation Psychology Perspective**

Liberation psychology (Martín-Baró, 1994) provides a useful theoretical framework when considering how identity content can promote perceptions of discrimination in a way that is freeing for members of oppressed groups. Dominant constructions of reality tend to promote a victim-blaming view of disadvantage, not as the product of injustice, but instead as the result of group deficiencies. In contrast, a liberation psychology analysis draws upon the perspective of the oppressed to illuminate typically obscured processes that work to sustain systems of domination (Bulhan, 1985, Martín-Baró, 1994). Liberation psychology perspectives claim that social reality is largely determined by those in power, and further, that dominant discourses of inequality serve to maintain these power structures. As such, a liberation psychology perspective suggests a series of inter-related tasks that, when put into practice, provide freedom from oppressive power structures.

The first of these tasks is the *recovery of historical memory*. Prevailing views suggest that reality is a natural and ahistorical process, which denies role past injustices play in shaping present cultural climates. However, by viewing history from the perspective of oppressed groups, one gains a connection to the events of the past, but also to one's own identity via oppressed individuals. Indeed, research has shown that knowledge of historical oppression has implications for group identification and conceptions of oppression (Adams & Salter, 2008; Kurtis, Adams, & Yellow Bird, 2009). The recovery of historical memory also provides an alternative foundation upon which to understand group identity, leading to changes in what how individuals understand what it means to be a member of a group. In the current project, engagement with critical aspects of women's history, particularly those events that highlight the limitations imposed on women, should therefore lead to broader constructions of oppression.

The second task of a liberation psychology is to *de-ideologize everyday experience*. Just as dominant discourses suggest that reality is ahistorical, these same discourses also reject the notion that reality bears any ideological stance or that the social world in which we operate is the product of motivated processes. This denial of ideological positioning ultimately serves to justify social injustice, as it suggests that inequality is a naturally occurring consequence of the world. In this regard, powerful groups use the veil of neutrality to maintain their social dominance. To the extent that reality as we know emerged to suit masculine roles, perceptions, needs, and values, women will consistently face limitations by operating in a world that was not meant for them. If women can acknowledge the masculine ideological motivations

built into reality, while also recognizing that male standards of being fail to reflect their own lives, they then can reconstruct understandings of reality in a manner consistent with their personal experience.

The third task of a liberation psychology is to *utilize the people's virtues*. Oppression, historical or contemporary, conveys the message that certain individuals are inherently less valuable than others, oftentimes by virtue of group membership alone. Women's work is less valued by society than men's, as are the contributions of numerous other subordinate social groups. However, the relatively less value placed on the traits and skills of subordinate groups again reflects constructions of reality intended to maintain social hierarchies. By recognizing the "virtues" (Martín-Baró, 1994, p. 51) of women's experience, as well as the significance and importance of these insights, women have an additional means to reject dominant constructions of reality in favor of those characterized by greater justice and equality.

### **Liberation psychology and critical pedagogy**

Liberation psychology directly draws upon Friere's work on critical pedagogy (1974), including the notion of critical consciousness, or *conscientização*. Critical consciousness is characterized by an in-depth engagement with the social world, allowing individuals to see social, political, and economic contradictions as well as an orientation towards action to reduce those contradictions. Critical consciousness is the development of a reflective understanding of the world—that is, a focus on the structures and motivations that underlie reality—and recognition of the interconnectedness of individual, social, and structural experience (De Lauretis, 1990; Friere, 1974; Gurin, 1985; Gurin & Townsend, 1992). The tasks proposed by liberation psychology

ultimately are calls for a critical consciousness of discrimination and oppression. These tasks ask individuals to recognize the extent to which seemingly natural social systems are actually the product of embedded social hierarchies, and to reconstruct their own realities based upon this knowledge. In other words, critical consciousness results in broader conceptualizations of bias, with an emphasis on the structural and seemingly “natural” social systems that perpetuate inequality. Critical pedagogy proposes that educational environments, even—or particularly—those intended to address issues of inequality, that fail to promote critical consciousness of oppression may ultimately reproduce oppressive systems. Despite motivations to the contrary, individualized approaches to injustice obscure an essential source of the problem.

Certain academic programs, namely those in gender and cultural studies, rely upon *conscientização* by illuminating positionality in the real world. By recognizing the source of social narratives regarding power and oppression, education in gender studies has a substantial impact on people’s understanding of discrimination (Case, 2007; Thomsen, Basu, & Reinitz, 1995) and their commitment to action against inequality (Stake & Rose, 1994). Moreover, research indicates that courses in women and gender studies also lead to changes in identity (Bargard & Hyde, 1991), such that students show progression along the continuum of feminist identity development (Downing & Roush, 1985) as a function of exposure to women’s studies education. In general, women’s studies education, built upon the values of critical pedagogy, successfully promotes both broader understandings of what constitutes discrimination as well as identity changes. In this regard, women’s



studies courses provide a relevant, real-world context in which to examine the impact of education on identity and perception of injustice

### **Present Research**

Drawing upon the aforementioned research, the current project considers the effect of women's studies education on identification level, identity content, and perceptions of sexism. Although previous work has explored the influence of educational context on both conceptions of sexism and identity, as well as considered the relationship between identity and perceptions of discrimination, the recent literature suggests that individual and sociocultural components of bias perception should be interrelated. However, no study to date has considered how these individual and cultural factors may interact to shape perceptions of bias. As such, I designed this investigation to explore how identity content and identification level may individually and jointly impact perceptions of sexism. The present project considers identity as both a quantitative and qualitative phenomenon, providing much-needed examination of the role of content in identification processes.

In Study 1, I examined the impact of an introductory women's studies course on level of gender identification, gender identity content<sup>1</sup>, and perceptions of sexism as compared to a control class. Building on results of this study and informed by liberation psychology and critical pedagogy, I conducted two follow-up studies in which I manipulated two dimensions distinguishing dimensions of women's studies courses that might account for

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<sup>1</sup> In the current project I consider gender identity along two dimensions: degree and content. When referring to the quantitative measure of strength of identity, I use the term "gender identification." I refer to qualitative differences in participants' meaning of their gender by using the term "gender identity content."

their effectiveness in promoting critical consciousness: social versus biological constructions of gender, and knowledge of women's history.

### **Value Position**

The present work relies upon a number of assumptions derived from the specific goals for the current project as well as with regard to society and academia broadly. I seek to promote intellectual diversity in the service of social justice and egalitarianism. To this end, I believe that promoting greater recognition of inequality—both by changing understandings of the self and broadening conceptions of sexism—is a desirable outcome. Rather than pathology, the ability to recognize bias reflects better awareness of the means by which political power is differentially distributed between social groups. This recognition is the important first step in the promotion of social equality.

### **Guiding Hypotheses**

There are a number of overarching hypotheses that bridge all three of the studies involved in this project. The first of these (H1) pertains to the relationship between cultural factors and level of gender identification. I anticipate that engagement with gender-relevant topics, either in the classroom or the laboratory, will promote greater identification as a woman than involvement in comparatively less gender-focused environments. With regard to identity content (H2), I expect that engagement with contexts characterized by non-traditional or critical information about gender will result in greater incorporation of these concepts in participants' gender identity. In addition I anticipate that gender conscious environments should promote greater perception of sexism in ambiguous events than non-gender conscious environments (H3).

In addition to direct effects of context on identity and perceptions of sexism, I also have hypotheses regarding the relationship between gender identity variables and perceptions of sexism. Consistent with previous research on the relationship between ethnic and national identification and perceptions of racism, one can anticipate that greater levels of gender identification will be associated with greater perception of sexism in ambiguous events (H4). I also expect that incorporation of discrimination-relevant concepts into gender identity to positively predict perceptions of sexism (H5). Finally, I anticipate a significant interaction between level of identification and identity content (H6). Specifically, strength of identification should lead to greater perception of sexism only for those participants with critical constructions of their gender identity.

In order to test these hypotheses I present data from three studies. Study 1 is a classroom-based study in which I assessed students in different courses at both the beginning and end of the semester to examine the effect of different course environments on identification as a woman, content of gender identity, and perceptions of sexism. Studies 2 and 3 are experiments in which I manipulated characteristics associated with the different classroom environments in a laboratory setting.

### **Study 1**

In order to examine the impact of different cultural sources of knowledge on perceptions of sexism and identity, I identified different courses that had the potential for meaningful comparisons. Previous research suggests that introductory women's studies courses provide a non-traditional yet basic framework that challenges existing conceptions of gender and identity (Scott,

Richards, & Wade, 1977). The field of women's studies was born out of the women's liberation movement and continues to promote recognition of the connection between course topics and one's personal life in addition to the political ramifications of gender in society (Hanisch, 1969).

As a comparison, I identified an introductory personality psychology course. Personality psychology courses also promote significant self-reflection, by highlighting individual differences in psychological phenomena. In addition, while personality psychology lacks the same gendered lens as women's studies, the course does include discussions of gender differences in personality across the semester. However, perhaps the most significant difference between personality psychology and women's studies lies in their relative recognition of the political and social context. Whereas women's studies is built upon recognition of political and social context, personality psychology courses typically fail to acknowledge the politicization of course topics and pay notably less attention to the importance of the social world.

For Study 1, the overall guiding hypotheses for the project apply to Study 1 in the following manner: with regard to H1, students in women's studies, by virtue of their interaction in an explicitly gender-focused course, will show greater gender identification over the course of the semester than will students in personality psychology, which lacks this same focus. For H2, students in women's studies, who are exposed to critical approaches to understanding gender, will recognize and emphasize these critical dimensions in their own experience of their gender. H3 states that the act of learning about women's issues historically and contemporarily, subtle and overt, will lead students in women's studies courses to recognize the potential for gender bias

in ambiguous situations or scenarios more than students in personality psychology courses. For H4, consistent with previous research on identification and perceptions of discrimination, I anticipate a positive relationship between gender identification and sexism perception. With regard to H5, extending previous findings on identity content and perception of bias, I anticipate that women who incorporate critical gender perspectives, such as the challenges caused by sexism, will be more likely to recognize sexism in ambiguous events or scenarios than women who did not hold critical gender perspectives. Finally, H6 implies an interaction between identification level and identity content such that increased identification will be associated with greater sexism perception only for participants who incorporate critical themes into their gender identity.

## Method

**Participants.** I recruited women from targeted courses at both the beginning and end of the semester. The full sample consisted of 126 participants: 75 students enrolled in *Women's Studies: An Interdisciplinary Introduction* and 51 students enrolled in *Personality Psychology*<sup>2</sup>. I selected these specific courses based on differences in content and perspective regarding gender. The official course descriptions are presented in Appendix A. These descriptions indicate a number of differences between the courses. The primary focus of the women's studies course is gender, whereas gender is a secondary (or even tertiary) consideration in personality psychology. In addition, the women's studies course takes a more historically-based analysis,

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<sup>2</sup> The women's studies participants were in one of three different sections of the course taught by three different instructors. The personality psychology students were in one of two different sections taught by the same instructor. Analyses of responses for women's studies students indicated no differences as a function of instructor.

while topics in personality psychology are weighted more heavily towards current theories and research rather than historical perspectives. The women's studies courses also emphasize political and structural implications of course content while personality psychology presents a more individualized and apolitical discussion of course content.

The ethnic breakdown of the overall sample was: 87% White, 6% Asian/Asian American, 4% Latino, 2% multiracial, and 1% African American. The average age of participants was 20 years old. Both the ethnic breakdown of participants and mean age were comparable for both kinds of courses<sup>3</sup>.

**Procedure.** After obtaining permission from course instructors, the researcher gave a brief explanation of the project, asked students who were interested in participating to remain seated, and excused those who declined to participate. I collected Time 1 data ( $n = 113$ : 62 from women's studies, 51 from personality psychology) during the first week of the semester, and I collected Time 2 data ( $n = 75$ : 49 women's studies, 26 personality psychology) during the week before final examinations. At both times, all students present agreed to complete the survey. Sixty-two participants (48 percent of the entire sample) completed the measures at both Time 1 and Time 2.

**Measures.** Participants completed measures in a pencil-and-paper format questionnaire (See Appendix B).

**Perceptions of sexism.** Participants used Likert-type scales to rate the extent to which a number of situations and scenarios were due to sexism (1 = not at all due to sexism, 7 = definitely due to sexism). The items included a

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<sup>3</sup>I also collected data from male students, but the number of men in both courses was too small to make sufficient gender comparisons. Moreover, the driving hypotheses for the project focused solely on women, so I did not include data from male participants in Study 1.

range of scenarios, including individual actions, (e.g. “At an office meeting, a visiting executive asks the only woman present for a cup of coffee, assuming that she is an administrative assistant.”), systemic inequities, (e.g., “According to the US Census Bureau, in 2004 the Female-to-Male Earnings Ratio was 77:100. In other words, women made only 77% of what men made.”), and cultural traditions (e.g., “In a traditional heterosexual marriage, women are expected to take on the man’s last name and men are expected to keep their given last name.”) I adapted the individual and systemic items based upon previous research on perceptions of racism (Adams et al., 2006). I created traditions items were developed to assess sexism perception in differential (but not inherently negative) treatment based on gender.

***Gender identification.*** I assessed strength of identification as a woman with the private regard subscale of the *Collective Self-Esteem Scale* (CSE; Luhtanen & Crocker, 1992). Participants indicated the extent to which they are glad to be a woman, as well as their perception that the group “women” is worthwhile. Again, participants rated these statements using 7-point Likert scales (1= Strongly Disagree, 7 = Strongly Agree).

***Gender identity content.*** The last task participants completed was to indicate what their gender meant to them personally. The instructions directed them to complete four identical, back-to-back, open-ended statements that said, “Being a member of my gender group means \_\_\_\_\_.”

## **Results**

**Differences by Retention.** I conducted a series of preliminary analyses to assess differences in participants who dropped out of the study and those who completed materials at both Time 1 and Time 2. The percentage of

dropout participants did not differ between women's studies and personality courses,  $N = 31$ , 42.5% and  $N = 27$ , or 52.1%, respectively,  $F(1, 111) = .29$ ,  $p = .59$ ,  $\eta^2 = .003$ . Further, in a comparison of differences within the two courses, dropout women's studies participants did not differ from non-dropout participants in level of identification,  $F(1, 58) = .42$ ,  $p = .52$ ,  $\eta^2 = .001$ , or sexism perception in individual events,  $F(1, 58) = .22$ ,  $p = .60$ ,  $\eta^2 = .001$ , systemic events,  $F(1, 58) = .04$ ,  $p = .84$ ,  $\eta^2 = .003$ , or gendered traditions,  $F(1, 58) = .15$ ,  $p = .70$ ,  $\eta^2 = .007$ . For participants in personality psychology, no differences emerged in identification,  $F(1, 48) = .84$ ,  $p = .36$ ,  $\eta^2 = .02$ , and sexism perception in individual events,  $F(1, 48) = .07$ ,  $p = .79$ ,  $\eta^2 = .002$ , systemic events,  $F(1, 48) = .01$ ,  $p = .93$ ,  $\eta^2 = .00005$ , or gendered traditions,  $F(1, 48) = .94$ ,  $p = .34$ ,  $\eta^2 = .02$ . None of the dropout participants from women's studies and only one of the dropout participants from personality psychology completed the identity content measure at Time 1. While this may indicate a lack of engagement in the course for these participants, this difference must be interpreted with caution given the absence of differences between dropouts and non-dropouts for all other dependent measures.

**Gender Identification.** To test for condition differences in identification, identity content, and perceptions of racism (i.e., hypotheses H1-H3), I conducted  $2 \times 2$  mixed-model analysis of variance (ANOVA) with course (women's studies, personality psychology) as the between-participants factor and time (semester beginning, end) as the repeated measures factor.

I created a single-item composite measure of gender identification by averaging responses on all four items of the private regard subscale of the CSE ( $\alpha_{\text{Time1}} = .82$ ,  $\alpha_{\text{Time2}} = .76$ ). Mean responses by time and condition appear in



Table 1. The  $2 \times 2$  ANOVA revealed a marginal effect of condition,  $F(1, 73) = 4.42, p = .08, \eta^2 = .05$ . However, this effect was in the opposite direction from the hypothesis, such that women's studies students indicated marginally lower levels of gender identification than personality psychology students ( $M_s = 6.10$  and  $6.44$  and  $SD_s = .84$  and  $.84$ , respectively). There was no significant effect of time on level of identification,  $F(1, 73) = .37, p = .55, \eta^2 = .02$ .

In addition to the marginal main effect of course on identification, there was also a marginally significant Course  $\times$  Time interaction,  $F(1, 73) = 2.94, p = .09, \eta^2 = .03$ . However, similar to the course main effect, this interaction was not in the hypothesized direction. Rather than an increase in identification, taking a women's studies course tended to result in a slight mean decrease (from  $6.20$  at Time 1 to  $6.00$  at Time 2), whereas students in the personality psychology course showed a slight increase (from  $6.40$  at Time 1 to  $6.49$  at Time 2).

Table 1. Mean gender identification scores by time, condition.

	<u>Time 1</u>		<u>Time 2</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Women's Studies	6.32	.90	6.11	.84
Personality Psychology	6.52	.53	6.53	.54

These unanticipated results (both for the main effect of course and the Course  $\times$  Time interaction) may be the result of comparison standards. In a women's studies course where gender is a perpetual topic of discussion students may feel that, by comparison, gender is not a constant consideration in their daily life and thus respond (slightly) lower on the scale. Personality psychology students lack such a comparison standard, perhaps resulting in

higher overall identification levels. However, a more likely alternative explanation is that these effects lack interpretability due to ceiling effects. The collective self-esteem scale provides a range of responses from 1 to 7, such that higher numbers indicate greater identification as a woman. For the current sample over 80% of participants responded to items with either a 6 or 7, suggesting that lack of hypothesized effects are the product of a skewed sample. Finally, such ceiling effects provide support for consideration of identity content in addition to level of identification, which I turn to next.

**Gender Identity Content.** In order to examine the role identity content played in participants' open-ended responses for gender identity meaning, a pair of independent reviewers who were blind to both condition and hypothesis coded these responses for a number of a priori dimensions. The basis for these dimensions was previous empirical work as well as research group discussions of theoretically meaningful categories. In addition, I instructed coders to suggest additional dimensions based on themes that emerged from the data. After coding was complete, I computed Cohen's Kappa tests for inter-rater reliability of coder's responses. Across all coded dimensions Kappa values ranged from .69 to .96,  $p's < .05$ . For those dimensions where agreement was .85 or below, a third coder (who was also blind to condition) resolved discrepancies between the two original coders. A description of the coding dimensions and examples of participant responses appear in Table 2. Frequencies of responses by condition and time appear in Table 3.

Each participant had the opportunity to respond to four identical open-ended statements that said, "Being a member of my gender group means

\_\_\_\_\_,” such that at each time point a participant’s responses might be coded four separate times for a single dimension. However, participants rarely responded with multiple statements tapping into the same dimension, therefore I created a single categorical score (presence vs. absence) for each coding category for each participant at both time points.

Table 2. Description of identity content coding categories with examples

Category	Description	Example
biology	reference to biological traits, such as giving birth, menstruation, sex organs	<i>“I can bear children”</i>
group	recognition of gender as a collective, sense of community	<i>“Sometimes I feel a strong bond with other women”</i>
struggle	acknowledging specific challenges or difficulties that come from being a woman	<i>“I have to work harder to be respected.”</i>
equality	mentioning the desire for or importance of gender equality	<i>“Being treated equal”</i>
rights	recognition of the various things one has, deserves, or ought be provided with as a woman	<i>“We can’t take the rights we have for granted”</i>
nothing	diminishing or dismissing the overall importance that gender has generally	<i>“Very little to me”</i>

*Note.* The examples presented here reflect responses that were coded on a single dimension only. However, responses that met the criteria for multiple dimensions were coded for both. For example, the response, “*I have to fight to be equal*” would have coded for the presence of both “struggle” and “equality.”

Table 3. Frequency and proportion of coding responses by time, condition.

	Women’s Studies				Personality Psychology			
	Time 1 (N = 9)		Time 2 (N = 17)		Time 1 (N = 11)		Time 2 (N = 12)	
	Freq	Proportion	Freq	Proportion	Freq	Proportion	Freq	Proportion
Biology	5	.56	4	.24	3	.27	3	.25
Group	1	.11	4	.24	3	.54	1	.08
Struggle	5	.56	14	.82	6	.54	4	.33
Equality	6	.54	7	.41	6	.54	2	.17
Rights	3	.33	4	.24	2	.18	2	.17

Nothing	1	.11	2	.12	0	0	1	.08
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*Note.* Ns for each column refer to the total number of participants who provided any response for the open-ended items.

As indicated at the top of Table 3, the number of participants who responded to the open-ended items was small, and corresponding frequencies of coding categories were too small to conduct statistical tests in most cases. The exception was the dimension *struggle*, which most directly maps on to hypotheses regarding critical conceptions of gender identity. I therefore limited formal analyses for identity content to *struggle*.

In order to assess whether there was a significant time difference in the mention of struggle I conducted a Chi-square test,  $\chi^2(1, N = 47) = .66, p = .42, \phi = .02$ . This analysis indicated that the number of participants who mentioned struggle did not differ over the course of the semester. However, there were significant differences in *struggle* by condition,  $\chi^2(1, N = 47) = 4.62, p < .05, \phi = .12$ . Participants in women's studies were more likely to incorporate notions of struggle into their gender identity than participants in the personality psychology condition. In addition, I conducted follow-up analyses that examined hypothesized time differences in *struggle* for women's studies students and personality students separately. Due to low sample size, I used Fisher's exact test. While there was no difference in responses over time for personality psychology students,  $p = .34$ , students in women's studies courses were somewhat more likely to discuss struggle themes in their gender content discussions at Time 2 than they were at Time 1,  $p = .09$ . This provides some evidence for the hypothesized effect of the women's studies course on identity content (H2).

**Perceptions of Sexism.** Eighteen items assessed perceptions of sexism in ambiguous events. I conducted confirmatory factor analyses based on  $a$

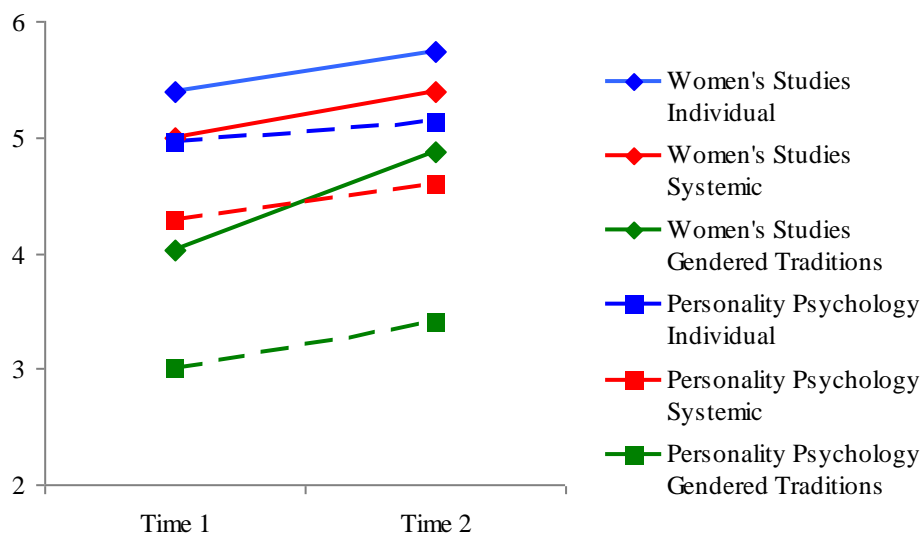
*priori* distinctions regarding different types of sexism: individual, systemic, and gendered traditions. These analyses yielded a 5-item factor assessing sexism in individualized scenarios ( $\alpha_{\text{Time 1}} = .88$ ,  $\alpha_{\text{Time 2}} = .79$ ), a 6-item factor assessing sexism in systemic events ( $\alpha_{\text{Time 1}} = .87$ ,  $\alpha_{\text{Time 2}} = .80$ ), and a 7-item factor assessing sexism in gendered traditions ( $\alpha_{\text{Time 1}} = .84$ ,  $\alpha_{\text{Time 2}} = .89$ ).

Drawing upon the results of the factor analysis, subsequent analyses in Study 1 assessed perceptions of sexism using these three separate variables.

In order to examine the effect of course and time on perceptions of sexism I conducted a series of  $2 \text{ (course)} \times 2 \text{ (time)}$  mixed-model ANOVAs for each of the different types of sexism perception (individual, systemic, and gendered traditions) as the dependent variables. These analysis resulted in significant main effects of course for individual,  $F(1, 59) = 8.08$ ,  $p < .01$ ,  $\eta^2 = .14$ , systemic,  $F(1, 59) = 6.65$ ,  $p < .05$ ,  $\eta^2 = .12$ , and gendered traditions,  $F(1, 59) = 12.95$ ,  $p < .01$ ,  $\eta^2 = .18$ . Participants in the women's studies course were more likely than participants from personality psychology to construct ambiguous events as the product of sexism for all three types of events (see Figure 1). In addition, there was a significant main effect of time for sexism perception in individual events,  $F(1, 59) = 12.82$ ,  $p < .01$ ,  $\eta^2 = .18$ , systemic events  $F(1, 59) = 19.00$ ,  $p < .001$ ,  $\eta^2 = .32$ , and gendered traditions,  $F(1, 59) = 23.69$ ,  $p < .001$ ,  $\eta^2 = .26$ . Over time, all participants were more likely to make attributions to sexism. Finally, the Course  $\times$  Time interaction was not significant for individual events,  $F(1, 59) = 1.15$ ,  $p = .29$ ,  $\eta^2 = .02$ , or systemic events,  $F(1, 59) = .001$ ,  $p = .98$ ,  $\eta^2 = .00003$ , but this interaction was significant for sexism perception in gendered traditions,  $F(1, 59) = 7.65$ ,  $p < .01$ ,  $\eta^2 = .08$ . Decomposition of this interaction indicates that the increase in

sexism perception for gendered traditions was greater for participants in women's studies courses (from  $M = 4.02$ ,  $SD = 1.22$  to  $M = 4.88$ ,  $SD = 1.20$ ),  $t(36) = -5.63$ ,  $p < .01$ ,  $d = .71$ , than for participants in personality psychology, (from  $M = 3.00$ ,  $SD = 1.24$  to  $M = 3.40$ ,  $SD = 1.33$ ),  $t(27) = -.09$ ,  $p = .17$ ,  $d = .31$ .

Figure 1. Perceptions of sexism in gendered traditions by course and time



The pattern of results for these variables—the significant Course  $\times$  Time interaction for perception of sexism in gendered traditions but not for individual or systemic forms—implies 3-way interaction of course, time, and sexism type. A 2 (course)  $\times$  2 (time)  $\times$  3 (sexism type) mixed-model ANOVA confirmed that this interaction was significant,  $F(2, 118) = 3.82$ ,  $p < .05$ ,  $\eta^2 = .04$ .

As an alternative to examining the Course  $\times$  Time interaction for each dimension of sexism perception, one can decompose this interaction by examining the Time  $\times$  Sexism Type interaction within each course. The Time  $\times$  Sexism Type interaction was only significant for participants in the women's studies course,  $F(2, 68) = 8.08$ ,  $p < .01$ ,  $\eta^2 = .29$ , but not the

personality psychology course,  $F(2, 68) = .56, p = .57, \eta^2 = .04$ . To probe the interaction among women's studies participants, I conducted a series of t-tests to examine which types of sexism differed over time for women's studies students. Although perceptions of sexism increased over the duration of the women studies course along individual,  $t(93) = 3.61, p < .01, d = .65$ , systemic  $t(93) = 3.36, p < .001, d = .55$ , and gendered traditions dimensions,  $t(93) = 4.85, p < .001, d = .72$ , the significant interaction reflects the fact that the increase between Time 1 and Time 2 was greatest for the dimension of gendered traditions.

**Gender Identification and Perceptions of Sexism.** In order to assess the relationship between gender identification and perceptions of sexism I conducted separate linear regressions in which I regressed perceptions of sexism variables at Time 2 on gender identification at Time 2. Gender identification significantly predicted perceptions of sexism in individual scenarios,  $\beta = .27, t(73) = 2.39, p < .05, R^2 = .07$ , and systemic events,  $\beta = .25, t(73) = 2.24, p < .05, R^2 = .06$ . These findings support H4, and indicate that greater identification as a woman was associated with greater perception of sexism. These results are consistent with previous research on identification and perceptions of racism, where greater racial identification is associated with greater attributions to racism in both systemic and individual events (Nelson et al., 2010; Salter, 2008).

At the same time, regression analyses for gendered traditions indicated that the effect of level of gender identification did not significantly predict sexism perception,  $\beta = .13, t(73) = 1.13, p = .27, R^2 = .02$ . This lack of significance is interesting given the nature of the gendered tradition measure.

Previous research on perceptions of discrimination distinguishes between individual and systemic bias (Nelson et al., 2010; Salter, 2008) in the context of racism, but has not examined discrimination perception in traditions. It is possible that a comparable parallel for the gendered traditions dimensions does not exist for race. The gendered traditions items address socially acceptable means for differential treatment of men and women based on traditional gender roles, and one might argue that similar differential treatment based on race is less acceptable.

**Identity Content and Perceptions of Sexism.** To assess H5, I examined the relationship between identity content and sexism perception by conducting t-tests of differences in perceptions of sexism at Time 2 based upon inclusion (or not) of *struggle* into participants' gender identity (also at Time 2). This analysis (and subsequent analyses with identity content) includes only those participants who elected to respond to the open-ended items assessing identity content. Participants who did not respond were coded as missing data rather than for the absence of the given coding dimensions. Details of these analyses appear in Table 4. Results indicate that *struggle* emerged as a marginally significant predictor of sexism perception in individual events,  $t(28) = 1.98, p = .06, d = .04$ , and a significant predictor of sexism perception in both systemic events,  $t(28) = 2.32, p < .05, d = .05$ , and gendered traditions,  $t(28) = 3.35, p < .01, d = .11$ . These results support H5, in that thinking of one's gender in terms of struggle promotes the construction of ambiguous events as the product of sexism.

**Level by Content Interaction and Sexism Perception.** Because of low response rates for the identity content measure there was not enough



power to test H6 regarding the interaction between identity content and strength of identification.

**Mediation Analyses.** While I was unable to test for the Identity Level  $\times$  Content interaction on sexism perception, findings did allow for the examination of identity content as a potential mediator of the relationship between condition and sexism perception at Time 2. I tested the mediation using Preacher & Hayes (2008) indirect effects macro and employed a bootstrapping approach (Shrout & Bolger, 2002). These results indicate that condition significantly predicted *struggle*,  $\beta = -.49$ ,  $t(29) = -2.98$ ,  $p < .01$ , and sexism perception in gendered traditions,  $\beta = -.94$ ,  $t(29) = 2.00$ ,  $p = .05$ , and *struggle* significantly predicted sexism perception in gendered traditions,  $\beta = 1.35$ ,  $t(29) = 2.72$ ,  $p < .05$ . Participants in women's studies courses were both more likely to internalize women's hardships as well as recognize the potential for sexism in gendered traditions. Incorporation of women's struggles into one's gender identity also led participants to see sexism in gendered traditions. When I included *struggle* as a mediator of the relationship between course and sexism perception, this pathway decreased significantly,  $\beta = -.10$ ,  $t(29) = -.57$ ,  $p = .57$ , 95% CI: LL = -1.74, UL = -.09, indicating that *struggle* significantly mediated this relationship. This analysis suggests that course differences in recognition of sexism in gendered traditions were the result of increased internalization of women's struggles into one's gender identity.

Other research examining the relationship between perceived discrimination and identification proposes an alternative mediational path. The rejection identification model (Branscombe, Schmitt, & Harvey, 2001) proposes that experiencing discrimination leads to increased group

identification as a means of maintaining-well being. Similarly, research on subgroup respect finds that perceived lack of respect promotes ingroup favoritism (Huo & Molina, 2006). In order to assess this alternative hypothesis, I repeated the above meditation analysis this time including identification as the outcome and sexism perception in gendered traditions. These results indicate that condition significantly predicted sexism perception in gendered traditions,  $\beta = -.94$ ,  $t(29) = 2.00$ ,  $p = .05$ , and *struggle*,  $\beta = -2.23$ ,  $t(29) = -2.53$ ,  $p < .05$ , and sexism perception in gendered traditions significantly predicted *struggle*,  $\beta = 1.15$ ,  $t(29) = 2.14$ ,  $p < .05$ . However, inclusion of sexism perception as a mediator did not significantly decrease the relationship between condition and *struggle*,  $\beta = -1.92$ ,  $t(29) = -1.88$ ,  $p = .07$ , 95% CI: LL = -16.53, UL = .12. This suggests that increased sexism perception in gendered traditions cannot account for the relationship between condition and thinking of one's gender in terms of struggle

## Discussion

When considering the hypothesized relationship between classroom context and gender identification, I failed to find support for H1. I proposed that increased in gender identification would occur over the course of the semester for women's studies students, but not for personality psychology students. However, results indicate that the opposite pattern emerged, such that personality psychology students increased in gender identification over time while women's studies students did not. As I have briefly discussed, a potential explanation for this relationship is based upon differing comparison standards made salient by the different classroom contexts. Women's studies courses present students with alternative, non-traditional, and critical

conceptions of gender, as discussed by scholars and presented by instructors that adhere to these different conceptions. This provides students with different gender-related exemplars than personality psychology, which does not critically examine gender conceptions. In addition, the significant differences occur alongside ceiling effects, and therefore lack certain theoretical meaningfulness.

Another possible source of this unanticipated difference in gender identification is the possibility that the meaning of these categories differ according to classroom context. Though participants in the personality course indicate higher levels of gender identification, the ‘Woman’ that they are identifying with is likely to be very different than the ‘Woman’ with whom participants in a women’s studies course are identifying. Consistent with this notion and in support of H2, I found that women’s studies students were more likely to think of their gender in terms of women’s struggles over the course of the semester than were participants in the personality psychology course.

I also found support for H3. Across the different forms of sexism consistent patterns emerge: women’s studies students make greater attributions to sexism in ambiguous events than personality psychology students and everyone sees greater sexism over the course of the semester. The former effect can be understood in part as the product of selection differences. Neither personality psychology nor introductory women’s studies are university requirements except for students who are majoring in the respective fields. The choice to enroll in a women’s studies course therefore suggests a degree of gender consciousness, or in the least, openness to understanding more about gender issues. The source of the increase in sexism perception over the course

of the semester is less clear, although one potential explanation is that students are increasing in liberalism as a function of university education (Vogt, 1997; Weil, 1985).

With regards to sexism type, perception of sexism in gendered traditions was always lower than perception of sexism in individual and systemic events. While students in personality psychology show comparable increases in sexism perception across all three types of sexism, for women's studies students the increase is greatest for gendered traditions. Thus, the experience of taking a course that critically examines gender in daily life leads to the recognition of cultural traditions as the product of bias. These results are consistent with previous work that finds that taking a women's studies course broadens understandings of gender bias (Case, 2007).

Results also indicate support for both H4 and H5, in that both gender identification level and identity content significantly predicted perceptions of sexism. Strength of identification as a woman positively predicted perceptions of sexism in individual and systemic events, replicating previous work on identity and perceptions of discrimination. However, level of gender identification did not significantly predict perceptions of discrimination in gendered traditions. Consideration of gendered traditions is a novel contribution that the current project makes to the existing literature on perceptions of discrimination, and results suggest that this conception of sexism operates differently than systemic and individual biases and warrants further examination.

Finally, with regard to gendered traditions, struggle significantly mediates the relationship between course and sexism perception, such that

differences between women's studies and personality psychology students recognition of sexism in gendered traditions were the result of internalizing women's struggles. Furthermore, sexism perception did not mediate the relationship between course and thinking of gender in terms of struggle.

These results emphasize the importance of considering both level and content of identification. That is, research must consider what being a woman means as well as how strongly one identifies with the category. With the exception of H1, the results from Study 1 are consistent with hypotheses regarding the relationship between context, identity, and perceptions of sexism. In order to further examine the relationships observed in Study 1, I conducted additional studies to directly test the impact of several factors thought to differ between the two classroom contexts, using an experimental design and laboratory setting.

## **Study 2**

In order to consider the impact of potential differences in classroom experience from Study 1, I conducted a laboratory study that manipulated conceptions of gender. While many people can articulate a basic distinction between sex (biology) and gender (social), everyday social activity tends to reflect and reproduce conceptions of rigid gender binaries that portray biology as the main determinant of gender. In contrast, women's studies courses provide an alternative to biological understandings and emphasize social structural influences on gender. While this perspective is inherent in women's studies, the same cannot be said for personality psychology. Therefore, in Study 2, I attempted to reproduce this difference between personality and women's studies courses in a laboratory. That is, I manipulated portrayals of

gender as a predominantly biological or a predominantly social construction, and I then examined the effect of this construction on gender identity and perceptions of sexism.

For Study 2, H1 states that reading about gender as a social rather than essentialist biological construct will lead participants to recognize the extent to which their gender is a category they engage with as a function of society rather than one that is imposed upon them by virtue of their biological makeup. For H2, reading about gender as a non-fixed, socially-determined category will promote more reflective and critical understandings of gender than reading about gender as a static biological category. With regard to H3, by de-essentializing gender through reading about its social underpinnings, participants in the social condition will be more critical of differential treatment that occurs on the basis of gender, and more open to the potential for sexism (rather than inherent sex difference) as a source of differential outcomes. Similar to Study 1 and consistent with previous work on identification and perceptions of discrimination, H4 proposes that greater strength of identification as a woman will be associated with greater sexism in ambiguous events or scenarios. Also as in Study 1, H5 suggests that incorporation of critical or non-traditional gender characteristics into one's gender identity will be associated with greater sexism perception in ambiguous events and scenarios (H5). Finally, H6 refers to a significant Identity Level  $\times$  Content interaction, such that increased identification will result in greater sexism perception for those people who think about their gender in terms in critical or non-traditional ways.

## Method

**Participants.** I recruited women ( $n = 71$ ) from an online research participation pool for an introductory psychology course. They received course credit for their participation. The sample was 83% White ( $n = 59$ ), 9% Asian/Asian American ( $n = 6$ ), 3% Multiracial ( $n = 2$ ), and 1% Native American ( $n = 1$ ). Three participants (4%) failed to indicate their ethnicity.

**Procedure.** Upon signing up for the study, instructions directed participants to an external website where they indicated their consent to complete the study.

**Gender conception manipulation.** I assigned participants at random to read one of two fabricated newspaper articles that described recent research about gender (see Appendix C). The article either concluded that gender was ultimately a biological phenomenon, or it concluded that gender was a social phenomenon. Participants studied the article with the understanding that they would answer questions about its content later in the study.

**Questionnaire measures.** Participants completed the same dependent measures as in Study 1, including gender identification, as measured by the private regard subscale of the CSE ( $\alpha = .84$ ), gender identity content, and perceptions of sexism.

## Results

Before conducting any hypothesis tests, I removed 12 participants who failed a manipulation check (providing a brief description of the article they read). This resulted in removal of five participants from the biology condition and seven participants from the social condition due to their inability to correctly recall the content of the article.

**Gender Identification.** I ran a  $t$ -test to assess the effect of condition on strength of identification. Replicating findings from Study 1, I found no significant effect of condition,  $t(1, 66) = -.21, p = .84, d = .08$ . The overall value was slightly lower than observed in Study 1 ( $M_{\text{biology}} = 5.47$   $SD = .79$ ,  $M_{\text{social}} = 5.41$ ,  $SD = .76$ ); however, no participant scored below the midpoint on this scale, indicating that participants were very highly identified with their gender.

**Gender Identity Content.** Raters coded open-ended responses for the same topics using the same process as in Study 1 (e.g., two independent coders with discrepancies resolved by a third coder in the case of items with low inter-rater reliability). In a clear improvement from Study 1, the response rate for the open-ended measure of identity content in Study 2 was 64% ( $N = 38$ ). Response frequencies are indicated in Table 4. Again, based upon response rate and relevance to hypotheses, I conducted analyses on identity content for the *struggle* variable only. A chi-square analysis predicting struggle by condition was not significant,  $\chi^2(1, N = 38) = .49, p = .49, \phi = .11$ , indicating that participants in the biology condition were equally likely as participants in the social condition to talk about their gender in terms of women's struggles.

Table 4. Frequency of coding responses by condition.

	Biology Condition ( $N = 19$ )		Social Condition ( $N = 19$ )	
	<u>Freq</u>	<u>Proportion</u>	<u>Freq</u>	<u>Proportion</u>
Biology	7	.37	3	.16
Group	6	.32	2	.11
Struggle	5	.26	7	.37
Equality	1	.05	0	0
Rights	1	.05	0	0
Nothing	1	.05	1	.05



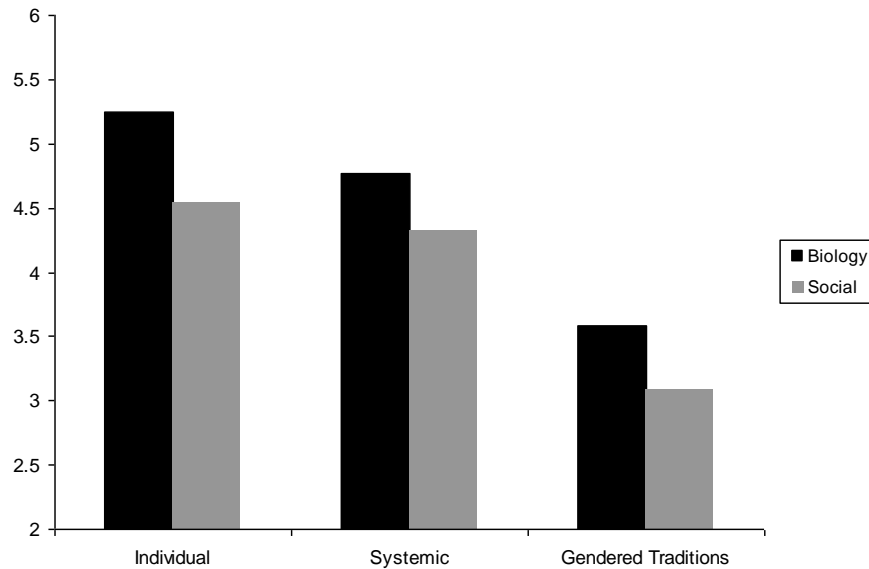
**Perceptions of Sexism.** With regard to perceptions of sexism, confirmatory factor analyses resulted in a conceptual replication of factors from Study 1. The single deviation from the solution of Study 1 was that item #3 moved from the systemic to the individual factor. For the sake of consistency I used the factor structure from Study 1 to create composite scores for individual events ( $\alpha = .73$ ), systemic events ( $\alpha = .78$ ), and gendered traditions ( $\alpha = .80$ ).

In order to assess condition differences in sexism perception I ran a series of one-way ANOVAs with condition predicting the three different forms of sexism (individual events, systemic events, gendered traditions). Results indicated a significant condition effect of sexism perception in individual events,  $F(1, 56) = 6.75, p < .05, \eta^2 = .11$ , but no effect of condition for sexism perception in systemic events,  $F(1, 56) = 2.32, p = .13, \eta^2 = .04$ , or gendered traditions,  $F(1, 56) = 2.53, p = .12, \eta^2 = .04$ . Graphs of sexism perception by condition appear in Figure 2. However, contrary to hypotheses, participants in the biology condition made greater attributions to sexism than did participants in the social condition. In addition, this same pattern also emerged for sexism perception in systemic events and gendered traditions, although failing to reach conventional levels of statistical significance.

The differential effect of the manipulation across different forms of sexism perception implies an interaction of Condition x Sexism Type. However, a 2 x 3 mixed-model ANOVA with condition as a between-participants factor and sexism type as a repeated measures factor indicated that the Condition  $\times$  Sexism Type was not significant,  $F(2, 112) = .74, p = .48, \eta^2 = .01$ . Accordingly, one should exercise caution about interpreting results as

evidence for differential effects of condition for different forms of sexism perception.

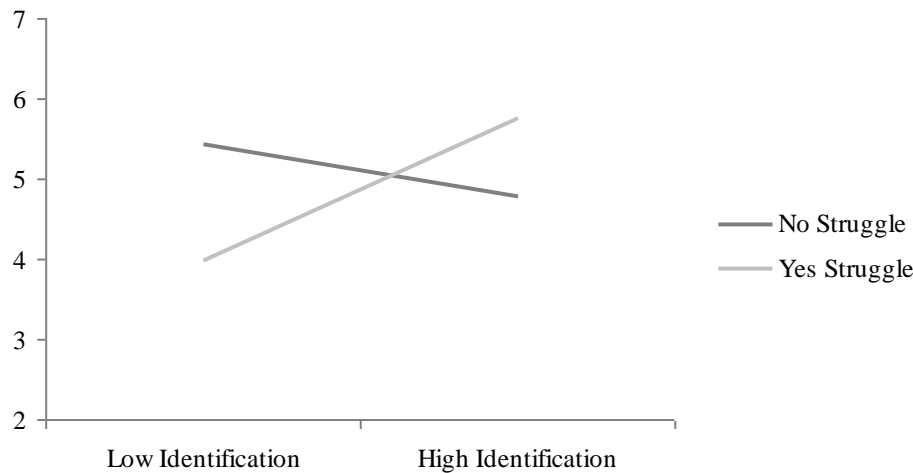
Figure 2. Perceptions of sexism by condition



**Gender Identity and Perceptions of Sexism.** I conducted multiple regression analyses to examine the relationship between identity (both level and content) and perceptions of sexism. I found no main effects for level of identification for sexism perception in individual events, systemic events, or gendered traditions. With regard to identity content, a significant main effect of struggle emerged for sexism perception in individual events,  $\beta = -3.98$ ,  $t(34) = -2.95$ ,  $p < .01$ ,  $R^2 = .24$ , which was qualified by a significant interaction between *struggle* and level of identification,  $\beta = 3.96$ ,  $t(34) = 2.97$ ,  $p < .01$ ,  $R^2 = .24$ . For participants who incorporate struggle into their gender identity, increased gender identification is associated with greater perception of sexism in individual events. This same interaction was not significant for sexism perception in systemic events,  $\beta = -.03$ ,  $t(34) = -.02$ ,  $p = .98$ ,  $R^2 = .05$ , or

gendered traditions,  $\beta = -.85$ ,  $t(34) = -.56$ ,  $p = .58$ ,  $R^2 = .03$ . A graph of the significant interaction appears in Figure 3.

Figure 3. Perceptions of sexism in individual events, identity level and content



## Discussion

The results of Study 2 yielded support for H2 and H5. No significant effects of condition emerged for level of identification, likely due to a ceiling effect, such that all participants scored very high on this measure. This indicated a failure to support H1. Furthermore, results also indicated no significant effects of condition on identity content. Despite substantially improved response rates from Study 1, participants in the biological and social conditions did not talk about their gender differentially. Effects of condition on sexism perception (H3) tended to be in the opposite direction as hypothesized. Rather than participants in the social condition seeing greater sexism, participants in the biological condition saw greater sexism overall.

Overall, this pattern suggests problems with the manipulation. One possible explanation for these effects is that, despite removing participants who could not successfully recall the content of the article they read, I failed

to assess the extent to which participants may have reacted negatively to the article content. It is possible that participants who successfully remembered what the article said may have also personally rejected its content.

Another possible explanation for the failure of the manipulation is that the articles were too subtle and too apolitical. It is possible that participants failed to consider the broader social implications of the perspective they read about and thus were not significantly affected by reading about gender research. In addition, while the study may have successfully manipulated (one of) the meaningful differences between the courses in Study 1, it is possible that the meaningful effects from Study 1 emerge not from presentation of information, but enculturation within a gendered environment.

Despite the lack of support for H1-3, I also considered the relationship between identity variables and sexism perception. I found no relationship between level of identification and sexism perception in individual or systemic events or gendered traditions, representing a lack of support for H4 and H5. However, when I considered identity content and the interaction of identification level and identity content, I found that, for participants who failed to incorporate struggle into their gender identity, increased identification as a woman did not influence their perceptions of sexism. However, for participants who think of their gender in terms of struggle, increased identification leads to greater recognition of sexism in individual events. These results indicated support for H6 and provided further evidence of the importance of considering multiple dimensions of identity.

### Study 3

Study 2 considered one factor—discussion of differences between men and women as biologically given or socially constructed—that varies across educational contexts and might account for differences observed in Study 1. Study 3 considered another set of factors that differ across educational contexts and might account for differences found in Study 1. As discussed earlier, one means by which group identity content can change is through the recovery of historical memory by recognition of the unique experiences of oppressed groups. With regard to women, this would include giving attention to the unique barriers women have faced throughout history, including first-wave feminists and the fight for suffrage all the way through to contemporary struggles women must confront. According to liberation psychology, drawing attention to historical inequality should allow for new understandings of what it means to be a woman, ultimately leading to liberation from oppressive systems.

This attention to women's historical struggles is also a distinct contribution of introductory women's studies courses that is not present in a personality course, suggesting a natural direction for follow-up to Study 1. Therefore, in Study 3 I employed a manipulation of knowledge of women's history to examine the effect on identification, identity content, and perceptions of sexism. Informed by previous research on historical knowledge, the manipulation presented participants with either facts about historical barriers for women, women's historical achievements, modern barriers for women, or history items unrelated to gender. I distinguished between relatively positive and negative historical events. To the extent that women are

represented in mainstream historical accounts, the focus is often on achievements they made rather than the limitations they faced. Studies show that focusing attention on the positive, celebratory aspects of a group's history leads to discrimination denials, whereas more critical historical accounts lead to greater recognition of discrimination (Salter, 2009).

The application of the guiding hypotheses to Study 3 was more complicated than in earlier studies. A liberation psychology perspective suggests that the recovery of historical memory, in particularly with regard to critical aspects of oppressed groups' histories, should have a unique impact on identity and perceptions of discrimination. At the same time, however, an alternative hypothesis exists regarding historical comparison standards. Recognition of historical oppression creates a standard for discrimination by which modern day issues of injustice pale in comparison. Previous research indicates that the presence of different standards influences perceptions of bias (O'Brien et al., 2010). After being primed with bigot stereotypes people see themselves as less prejudiced, suggesting that this exemplar shifted general standards for what constitutes bias. Along these same lines, reading about past gender bias may create stricter standards for what participants recognize as sexism in the present. If denying women the right to vote is sexism, perhaps calling female targeted toys dolls (rather than action figures) fails to measure up to this standard. In this regard, I developed initial hypotheses based on a liberation psychology perspective, while also acknowledging alternative hypotheses based upon the potential that thinking about history may inhibit sexism perception through the creation of alternative comparison standards.

For H1, a liberation psychology perspective proposes that learning about the history of one's group, especially with regard to the negative or critical aspects of that history, will lead to greater identification with oppressed groups. Alternatively, the historical comparison standards hypothesis suggests that participants in the modern barriers condition will show greater identification as a woman than participants in the historical conditions.

With regard to H2, engagement with the history of one's group, especially the discrimination that group has felt, will lead to understandings of one's gender in terms of this disadvantage. The alternative hypothesis suggests that reading about women's history actually provides a downward social comparison by which modern issues seem less severe, such that reading about modern barriers will lead to greater incorporation of these dimensions into one's gender identity than reading about the group's history.

Regarding the relationship between condition and sexism perception (H3), a liberation psychology hypothesis proposes that reading about historical barriers will provide students with a frame work for recognizing the well-established roots of gender bias, and lead to greater recognition of sexism contemporarily. Alternatively, a focus on modern barriers will prime participants such that they are more open to the possibility of sexism, while historical sexism makes contemporary issues seem trivial.

In contrast to hypotheses H1-H3, hypotheses H4-H6, which deal with the relationship between identity and sexism perception, are unaffected by the differing theoretical frameworks implicit in the experimental manipulation. Consistent with predictions in Studies 1 and 2, H4 suggests that increased

identification as a woman will be associated with greater sexism perception in ambiguous events and scenarios. In considering the relationship between identity content and sexism perception, H5 again states that incorporation of critical or non-traditional gender characteristics into one's gender identity will lead to greater perception of sexism in ambiguous events and scenarios. Finally, H6 states that the interaction of content and strength of identification matters for sexism perception, such that greater identification will only lead to greater perception of sexism for those who incorporate critical themes into their gender identity.

## **Method**

**Participants.** I recruited women ( $n = 113$ ) from an online research participation pool and introductory psychology course. They received course credit for their participation. The sample was 81% White ( $n = 92$ ), 5% African American ( $n = 6$ ), 5% Latino ( $n = 6$ ), 3% Multiracial ( $n = 3$ ), 2% Native American ( $n = 2$ ), and 2 % Asian/Asian ( $n = 2$ ) and 2% non-disclosed ( $n = 2$ ). Mean age was 19 years.

**Procedure.** When participants arrived at the experiment, a research assistant greeted and presented them with a consent form. After agreeing to participate, the research assistant gave participants two folders. The first folder included a list of facts and the second folder contained a questionnaire with the dependent measures. Participants had five minutes to study the list of facts before they completed a questionnaire, with the understanding that they would answer questions about the list of facts after completing the questionnaire.

**Historical facts manipulation.** Participants studied a list of 12 facts. Seven of the facts were unrelated to gender and common to all participants.



The remaining five target facts differed for participants by condition. For participants in the *historical barriers* condition, these target facts described specific challenges women faced in the past. For participants in the *modern barriers* condition, these facts referenced contemporary issues women face. Participants in the *historical achievements* condition read facts about specific achievements and advancements women made in the past. Finally, participants in the *control* condition read 12 total facts unrelated to gender. A list of all items appears in Appendix D.

**Questionnaire measures.** Participants completed the same dependent measures as in Study 1, including gender identification ( $\alpha = .84$ ), gender identity content, and perceptions of sexism.

## Results

Before I conducted analyses I checked to see that participants successfully recalled the historical facts that they read at the beginning of the study. Unlike Study 2, participants were generally successful in passing this manipulation check, remembering nearly 4 facts on average ( $M = 3.97$ ,  $SD = 1.66$ ). Only one participant was unable to recall any facts whatsoever, and I excluded this participant from subsequent analyses.

Given the competing hypotheses, I devised a pair of *a priori* contrasts to assess these different predictions. A liberation psychology hypothesis suggests that recovery of critical historical memory—namely those negative aspects of a group’s history that are often omitted from mainstream accounts—promotes changes in identity and recognition of discrimination. To test this hypothesis I examined the linear contrast that compared the historical barriers condition to the other three conditions (historical achievements,

modern barriers, control). The historical comparison hypothesis proposes that engagement with a group's history leads to inhibition of recognition of group-based injustice in the present. To test this alternative hypothesis I examined the linear contrast between the combined historical conditions and the combination of modern barriers and control conditions.

**Gender Identification.** In order to assess the effect of condition on gender identification, gender identity content, and perceptions of sexism I ran a series of one-way ANOVAs. No significant differences emerged for level of gender identification by condition,  $F(3, 109) = .13, p = .94, \eta^2 = .004$ . Given the precise *a priori* prediction discussion above, I then assessed differences based on the contrasts for each theoretical perspective. This contrast was not significant for either the liberation psychology hypothesis  $F(1, 108) = .25, p = .62, \eta^2 = .002$ , or the historical comparison standard hypothesis,  $F(1, 108) = .0002, p = .99, \eta^2 = .000002$ . Similar to Studies 1 and 2, there was a clear ceiling effect present as the overall mean for this measure was 6.4 on a 7-point scale. Means by condition appear in Table 5. All participants identified strongly with the category of woman, and this did not differ by condition.

Table 5. Mean gender identification scores by condition.

	<u><i>M</i></u>	<u><i>SD</i></u>
Historical Barriers	6.33	1.13
Historical Achievements	6.46	.53
Modern Barriers	6.41	.84
Control	6.38	.49

**Gender Identity Content.** Raters coded open-ended responses for the same topics via the same process as in Studies 1 and 2. Further improving upon the response rate from Study 2, 84% of participants completed the open-

ended measures. Frequencies of responses for coding dimensions appear in Table 6. In order to assess the effect of condition on identity content, I conducted chi-square tests to assess condition differences on the *struggle* dimension,  $\chi^2 (3, N = 95) = 8.86, p < .05, \phi = .31$ . The follow-up contrast for the liberation psychology hypothesis was not significant,  $\chi^2 (1, N = 95) = .11, p = .74, \phi = .01$ . The contrast for the historical comparison standards hypothesis was marginally significant,  $\chi^2 (1, N = 95) = 3.01, p = .08, \phi = .18$ . Women who read about women's history were less likely to incorporate struggle into their identity (26.5%) as woman than were women in the other 2 conditions (43.5%).

Table 6. Frequency and proportion of coding responses by condition

	Historical Barriers ( <i>N</i> = 22)		Historical Achievements ( <i>N</i> = 27)		Modern Barriers ( <i>N</i> = 17)		Control ( <i>N</i> = 29)	
	Freq	Proportion	Freq	Proportion	Freq	Proportion	Freq	Proportion
Biology	6	.27	8	.30	6	.35	6	.21
Group	3	.14	4	.15	5	.02	9	.31
Struggle	6	.27	7	.26	11	.65	9	.31
Equality	4	.18	4	.15	6	.35	11	.38
Rights	2	.09	9	.33	5	.02	2	.07
Nothing	0	0	1	.04	1	.06	0	0

**Perceptions of Sexism.** As in Studies 1 and 2, I performed a confirmatory factor analysis on the 18 items assessing perceptions of sexism based on *a priori* hypotheses. Results from this analysis were conceptually consistent with those from Study 1, with only two items moving to a different factor (#2 moved from the individual factor to the systemic factor, and #7 moved from the systemic factor to the individual factor). Given the conceptual replication, and for the sake of consistency between studies, I again created composite individual ( $\alpha_{\text{individual}} = .76$ ), systemic ( $\alpha_{\text{systemic}} = .77$ ), and gendered

traditions ( $\alpha_{\text{gendered traditions}} = 83.$ ) perceptions of sexism scores that mirrored those in Study 1.

In order to assess condition differences in sexism perception I ran a series of one-way ANOVAs with condition predicting the three different forms of sexism. Results indicated no significant condition effect for individual events,  $F(3, 107) = 1.35, p = .26, \eta^2 = .04$ , systemic events,  $F(3, 107) = 2.07, p = .12, \eta^2 = .06$ , or gendered traditions  $F(3, 107) = 1.32, p = .27, \eta^2 = .04$ . Mean values for sexism perception by condition are presented in Table 7.

Table 7. Mean scores for sexism perception by condition

	Historical Barriers		Historical Achievements		Modern Barriers		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	4.97	1.03	5.01	0.87	5.22	0.82	5.38	0.83
Systemic	4.28	1.14	4.33	1.00	4.88	0.84	4.62	0.96
Gendered Traditions	3.49	1.24	3.25	1.02	3.79	1.02	3.66	1.09

Despite the failure of the omnibus ANOVA to reach conventional levels of significance for sexism perception by condition, I again performed linear contrasts to test competing hypotheses. The liberation psychology comparison was not significant for sexism perception in individual events,  $F(1, 107) = 1.37, p = .25, \eta^2 = .01$ , systemic events,  $F(1, 108) = 2.40, p = .13, \eta^2 = .02$ , or gendered traditions,  $F(1, 108) = .14, p = .71, \eta^2 = .001$ . However, the historical comparison standard contrast was marginally significant for individual events,  $F(1, 107) = 3.34, p = .07, \eta^2 = .03$ , and gendered traditions,  $F(1, 108) = 3.33, p = .07, \eta^2 = .03$ . This contrast was also significant for sexism perception in systemic events,  $F(1, 108) = 6.19, p < .05, \eta^2 = .05$ .

Reading about women's history decreased the likelihood that participants recognized sexism in contemporary ambiguous events.

**Gender Identity and Perceptions of Sexism.** In order to examine the relationship between identity and sexism perception, I conducted a series of linear regression analyses using level of identification, identity content, and the interaction of these variables as predictors for individual, systemic, and gendered tradition items. Neither the main effect of identification level nor the Identity Level  $\times$  Content interaction significantly predicted sexism perception in individual events, systemic events, or gendered traditions. Inconsistent with hypotheses, how strongly one identified as a woman was not a significant predictor of the likelihood one would attribute ambiguous events to sexism. This lack of significance may reflect the lack of variability present for our identification measure as indicated by ceiling effects.

Similar to the results from Study 1, talking about one's gender in terms of *struggle* positively predicted perceptions of sexism in gendered traditions,  $\beta = .11$ ,  $t(92) = 2.95$ ,  $p < .01$ ,  $R^2 = .09$ . Participants who internalize the challenges associated with being a woman better recognize how gender-related cultural traditions reflect sexism.

## Discussion

Results of Study 3 revealed no significant condition effects on level of gender identification, indicating a lack of support for H1. In addition, results revealed no effect of identity strength or Identity Level  $\times$  Content interaction, thus indicating no support for hypotheses H4 and H6. Reading about women's historical experiences failed to influence how strongly one identified as a woman. Similarly to both Studies 1 and 2, there was a clear ceiling effect for

this variable such that all participants scored quite high on this measure. Given the dearth of variability among scores on this measure it is unsurprising that the manipulation did not affect participants' level of identification.

Results did indicate support for the alternative hypothesis H2. Reading about women's history decreased participants' tendencies to think about their gender in terms of struggle. Participants in the modern barriers or the control condition were more likely to incorporate notions of struggle into their gender identity than participants in the historical conditions. While these findings do not follow the anticipated pattern predicted by liberation psychology, they do fit the alternative framework that suggests that consideration of past injustices allows for a degree of psychological distancing from sexism (Trope & Liberman, 2010). Given the nature of the manipulation (e.g., reading about only modern or historical experience of women), this experience differs from the experience of participants in Study 1 in a meaningful way. Whereas students in introductory women's studies not only learn about modern and historical women's issues, the classroom framework allows for better recognition of the connection between the past and the present in a manner that I failed to replicate for laboratory participants.

Results also indicated support for alternative hypothesis H3. Thinking about women's history, both in terms of achievements and limitations, inhibited sexism perception. These findings are consistent with idea that the historical conditions led to different comparison standards for what constitutes oppression (O'Brien et al., 2010). In the present study thinking about historical women's issues may create a comparison standard against which less overt, modern biases pale in comparison.

Results revealed support for H5, as identity content predicted perceptions of sexism. Replicating results of Study 1, participants who thought about their gender in terms of struggle also saw sexism in cultural traditions. This replication provides further evidence of the mutual relationship between internalization of gender struggles and broadening conceptions of gender bias.

### **General Discussion**

The impact of taking a women's studies course is evident both in how one constructs gender identity and what one constructs as sexism. Results of the present research indicate that both construction of women's identity in terms of struggle and recognition of gendered traditions as sexism increased uniquely for students enrolled in a women's studies course. Moreover, while strength of identification significantly predicted sexism perception in individual and systemic events, identity content predicted the construction of gendered traditions as sexist.

Despite representing a significant topic of discussion in women's studies courses, explicitly manipulating conceptions of gender as socially constructed (rather than biologically determined) failed to produce significant differences in strength of gender identification or content of gender identity. However, an examination of the relationship between identity and content revealed that for women who had internalized the concept of struggle in their gender identity, increased strength of identification as a woman led to greater recognition of sexism. This relationship did not exist for those who failed to internalize women's struggles, and even trended negative, such that increased identification without struggle led to denials of sexism.

The failure of the manipulation in Study 2 might be attributable to a number of factors. First of all, the study lacked a measure to assess agreement with the article that instantiated the manipulation. It is possible that women in one or both conditions reacted against the content of the article, resulting in differing and unanticipated consequences. Moreover, an additional tenet of gender studies is the recognition of different sources of knowledge, and criticism of the “science = truth” model (Oakley, 1998). With this understanding, presenting participants—even those who may have little background in gender studies—with scientific research intended to represent and convince readers that science holds the “truth” regarding the nature of gender was perhaps an exercise in ironic shortsightedness. Not only was the content of the manipulation antithetical to the values of gender studies, it may have also led to reactance among participants, particularly those in the biology condition. This reactance may have then led participants in this condition to see greater sexism than participants in the social condition.

Reading about women’s issues in history led to a failure to construct ambiguous current events as sexism and did not promote construction of gender identity in terms of struggle. These findings are somewhat inconsistent with a liberation psychology perspective, and instead reflect the extent to which time of reference can lead to a change in comparison standards for discrimination. Instead of the recovery of women’s history leading to critical, structural awareness of gender and oppression, thinking about women’s history led to denials of contemporary racism and a failure to incorporate critical themes into one’s gender identity.



Again, unlike students who enroll in women's studies, participants in Study 3 read snapshots of women's experiences without the educational grounding and training to see connections between historical and modern day gender issues. In this regard, the nature of the manipulation may have failed to create the necessary conditions to influence identification and sexism perception in a manner consistent with a liberation psychology perspective. However, given that other researchers have used similar methods to examine perception of racism and ethnic identity (Salter, 2008), further examination of the ways in which the experience of gender differs from the experience of race and ethnicity is warranted. It is possible that gender as a social category is unique, and paternalistic social norms surrounding gender relations lead to certain denials of women's marginalization in ways that would not similarly affect persons of color. For example, contemporary scholarship of race issues (see Pettigrew, 1980) and public discourse (Bonilla-Silva, 2006) overwhelmingly reject biological conceptions of race. However, biological determinism narratives continue to justify gender differentiation (Jackman, 1994). To the extent that belief in inherent gender differences prevails, support for traditions pertaining to differential treatment of men and women is likely to persist.

### **Limitations and Future Directions**

Perhaps one of the most evident shortcomings of the current study lies in the method of assessing identity content. The question itself was quite challenging for participants ("Being a member of my gender group means \_\_\_\_\_."), as evidenced by the low response rate of Study 1, and only marginally better response rate in Study 2. Given that participants are unlikely

to critically consider their gender on a regular basis, this question may have been difficult for them to answer. A more directed question and/or interviews are likely to yield better, more interpretable responses.

In addition, more sophisticated manipulations of course content are warranted to examine the extent to which effects in Study 1 are the product of receiving new information, socialization, or a combination of the two. In the current project, the snapshot approach of the laboratory experiments was largely insufficient in recreating the experience of an introductory women's studies course. While the manipulations themselves mapped on to important aspects of course content, these manipulations often failed to produce similar effects as in Study 1. It may be equally important to design follow-up studies that re-create a learning experience, potentially through a learning tutorial designed to educate participants on a given topic. A related direction for future research is to explore differences in course content between personality psychology and women's studies: for example, via content analysis of textbooks, syllabi, or other course features.

Despite problems with attempts to operationalize independent variables in Studies 2 and 3, it is important to note that patterns of relationships between the dependent measures were largely consistent across the three studies. These relationships emphasize the importance of broadening social psychological work on identity and inequality in two ways. First, the current results emphasize awareness of bias not only in individuals and social systems, but also within cultural traditions. Results suggest that awareness of sexism in gendered traditions operates differently from awareness of other forms of sexism. Second, results illuminate the importance that consideration

of the content or meaning has for research on identity. Results consistently show that how individuals define what it means to be a woman influences their understandings of sexism far more than how strongly they identify with the category.

With regard to the relationship between identity and sexism perception, throughout the three studies I discuss findings in a specific direction. I propose that cultural and contextual factors lead to changes in what it means to be a woman, and that this change in identity content leads to changes in sexism perception. At the same time, previous research indicates that the opposite may be true. In work on subgroup respect, Huo & Molina (2006) find a perceived lack of respect for one's group impacts subgroup identification. Similarly, work on the *rejection-identification model* (Branscombe, Schmitt, & Harvey, 1999) proposes that perceived group rejection (such as discrimination) leads to greater group identification as a means of coping. However, results from the mediation analyses in Study 1 indicate that identity influences recognition of discrimination, rather than the opposite relationship.

Another direction for future research on sexism perception is to consider how such knowledge affects well-being. The current project assumes that recognition of discrimination and oppression is a good thing. Indeed, one can hardly expect to bring about positive social change without first creating recognition that there is indeed a problem in need of addressing. However, research indicates that awareness of oppression has negative consequences for physical and psychological health above and beyond more generic, non-discrimination related life stressors (Landrine et al., 1995; Moradi & Subich, 2003).

A liberation psychology framework challenges traditional psychology's exclusive focus on the individual, noting that this perspective ultimately cannot address psychological issues that occur at the group level (Bulhan, 1985). Liberation psychology suggests that well-being also occurs at the level of the collective. To the extent that personal well-being is conceptualized in part as mastery over one's life (Ryff & Keyes, 1995), one might consider collective well-being as the extent to which groups possess similar mastery. Therefore, as long as one's group remains oppressed, group well-being is thwarted. Further, emphasizing individual well-being when barriers to well-being occur at the group level has potentially unintended conservative consequences. Liberation psychology proposes that, rather than having individuals adapt to social inequality, we must seek to address collective problems at the level of the collective.

As an example of how a liberation psychology promotes a collective approach to well-being, consider the case of a woman suffering from agoraphobia. An individualized psychological perspective might propose a series of cognitive and behavioral changes that she could enact to improve her condition. In this case, the onus is on the individual to rid herself of that which is psychologically damaging. In contrast, a liberation psychology perspective might ask her to recognize the extent to which her condition reflects gender roles and norms, namely that require women's passivity and dependence. Recognizing the structural (as opposed to individual) sources for her condition leads to different responses, such as the substitution of oppression-relevant constructions of reality or through collective action that seeks to directly dismantle oppressive social systems.

While I do not wish to make the claim that all barriers to well-being can be traced back to structural-level problems, an individualized psychological perspective precludes this possibility. To the extent that barriers to well-being manifest at the group level, an individual approach asks people to adapt to systems of oppression, rather than to transform them so that the system is no longer oppressive. While adaptation may aid the individual, by failing to address the source of the problem this response ensures that others will continue to suffer. However, a collective approach—which recognizes the structural, embedded nature of reality—leads to transformation at the societal level, ultimately benefiting the collective, rather than just the individual. Along these lines, future research should consider how well-being functions at the collective level, along with strategies to promote this outcome.

### **Implications**

The present research has clear implications for the study of group identity, particularly in regard to gender. All three studies provide evidence of ceiling effects on the measure of strength of identification, indicating that virtually everyone in the study was a highly identified woman. Given the tendency of social psychological work to over-emphasize identification level and exclude discussions of content, these findings indicate that such practices may have little potential for illuminating psychological processes. The lack of variability that emerged for the strength of identification measure emphasizes the importance of considering other means of assessing identity, in particular, identity content. Research in psychology that looks at the meaning of identities is considerably limited, yet in the current study identity content consistently emerged as a meaningful predictor of sexism perception. Moreover, without

allowing participants the opportunity to define their identities for themselves, we run the risk of essentializing categories and misrepresenting experience.

Besides implications for the study of group identity, the current project also has implications for the study of bias. Previous research that has discussed different forms of oppression often has focused on the distinction between individual or systemic inequality. The current project also includes items that are superficially neither positive nor negative, yet reflect differences in the way that people are treated on the basis of gender. This construct is particularly important given the extent to which people may use tradition as an excuse for unequal treatment of women and men.

The results from the current studies on the relationship between identity and sexism perception are only somewhat consistent with previous findings on the relationship between ethnic identity and perceptions of racism. For example, in Study 1, strength of identification predicts sexism perception in individual situations and systemic events, which is consistent with research on ethnic identity and racism perception, but identification fails to predict sexism perception in gender traditions (a gender-unique classification of bias). Moreover, Studies 2 and 3 both fail to find a relationship between identification level and sexism perception. This discrepancy provides additional support for gender as a unique social identity that may fail to align with the relationships observed with other group identities.

## **Conclusion**

The present studies consider how educational and cultural contexts may promote differences in understandings of what constitutes sexism, while also having an effect on gender identity. Educational environments that

promote critical awareness of oppression also carry the potential to promote understandings of reality that lead to liberation from oppressive social systems. Context also influences personal conceptions of gender in meaningful ways. In order to more fully understand the relationship between identity and oppression, research must consider the meaning group identities hold in concert with strength of identification. This is particularly important in the case of gender identity, where identity constructions lack consensus but people consistently score high on measures of strength of identification. When research considers identity content in concert with strength of identification, we will better understand the processes by which the self interacts with the social world.

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## Appendix A

### *WS 201: Women's Studies: An Interdisciplinary Introduction*

*Description:* An interdisciplinary introduction to the study of women. Topics may include gender ideologies and views of women, social roles, education, the family, economics, and politics. The major ideas and leaders of feminist movements and theories may also be considered. Topics will be approached from the perspective of both the social sciences and humanities and will include some comparison with non-Western and past cultures.

### *PSYC 120: Personality*

*Description:* An introductory survey of personality theories, development, assessment and current research.



## Appendix B

### Perceptions of Sexism

Please indicate the degree to which you think the following items are due to sexism by circling a number 1 thru 7.

#### Individual Items

1. Use of the pronoun *he* to refer to all people.
2. A man hangs up a swimsuit calendar in his cubicle at work. The pictures of female swimsuit models are in plain sight of his officemates.
3. After being reprimanded by his female boss for tardiness, Bill tells his colleagues, "It must be that time of the month."
4. A woman interviews for a job at a computer electronics store. After the woman answers some questions which demonstrate her expert computer knowledge the manager exclaims, "Wow, you know a lot about computers for a girl!"
5. Andrea and Colin want to purchase a car. At the dealership, the sales representative directs attention primarily to Colin.

#### Systemic Items

1. The unequal numbers of women and men in math, computer science, and engineering fields.
2. Minimum height requirements for firefighters, which are more likely to exclude women than men.

3. Susan and Robert both went up for a promotion at work. They had equal qualifications and experience, but Robert received the promotion and Susan did not.
4. The greater proportion of money spent on men's college athletic teams compared to women's college athletic teams.
5. At an office meeting, a visiting executive asks the only woman present for a cup of coffee, assuming that she is an administrative assistant.
6. According to the US Census Bureau, in 2004 the Female-to-Male Earnings Ratio was 77:100. In other words, women made only 77% of what men made.

#### Gendered Traditions

1. In a traditional heterosexual marriage, women are expected to take on the man's last name and men are expected to keep their given last name.
2. "Ladies' Day" at Jiffy Lube, where women get a 15% discount on their oil change.
3. When Brenda, an attorney and new mother, returns from her maternity leave she is given a lighter caseload than her colleagues.
4. Referring to male-targeted toys as "action figures" and female-targeted toys as "dolls."
5. When Katie turns six years old her parents sign her up for dance lessons. At the same time they sign up her twin brother Keith for Pop Warner football.
6. James makes a point to always hold the door open for women. He does not hold the door open for men.

7. Men, but not women, are required to register for the military draft upon turning 18.

Collective Self-Esteem Scale (Luhtanen & Crocker, 1992): Private Regard Subscale

Please rate your agreement with the following statements by circling the corresponding number on the scales provided.

1. I often regret that I belong to my gender group. (reverse)
2. In general, I'm glad to be a member of my gender group.
3. Overall, I often feel that my gender group is not worthwhile. (reverse)
4. I feel good about the gender group I belong to.

Gender Identity Content

Please finish the following sentences about what it means to be a member of your gender group:

Being a member of my gender group means \_\_\_\_\_  
\_\_\_\_\_.

Being a member of my gender group means \_\_\_\_\_  
\_\_\_\_\_.

Being a member of my gender group means \_\_\_\_\_  
\_\_\_\_\_.

Being a member of my gender group means \_\_\_\_\_  
\_\_\_\_\_.

## Social Condition

## Appendix C

The New York Times

## Continued Research on the Socialization of Gender

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By [MORGAN JOHNSTON](#)

Published: January 21, 2010

Researchers continue to find powerful support for the role of socialization in gender. Despite popular notions that biology shapes gender development, research suggests that social influences are the true source of differences between women and men.



The Gender and Behavior Lab at Northwestern University is devoted to the continued study of how gender is determined and that makes women and men tick.

Dr. Sarah Voelker and Dr. James Hardiman, founders of the Gender and Behavior Lab, have examined this question from a number of different angles, including chromosomal makeup, prenatal and postnatal hormones, parental influence, and cultural views about masculinity and femininity, among others. Overwhelmingly their research suggests that social influences are more important than biological influences.

According to Voelker, "It all comes down to society. The moment we're born, someone puts either a pink or a blue hat on our head, and we're treated differently from that point forward. The media tells us what women and men are, and we're constantly asked to fit these ideals. These factors are extremely powerful and have a profound influence on our sense of self."

When asked about contradicting work that suggests biology is more important for gender, Hardiman pointed to work on different cultures with dramatically different views about gender.

"Despite biological similarity, people from cultures with different views about gender will understand their own gender in very different ways, which tells us that it is society that really determines gender."

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## Biology Condition

The New York Times

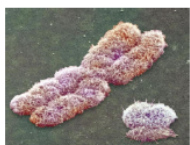
## Continued Research on the Biology of Gender

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According to Voelker, "It all comes down to biology. Women and men are equipped with different organs, have different chromosomes, and are subject to different hormonal influences. These factors are extremely powerful, and have a profound influence on our sense of self."

When asked about contradicting work that suggests social influences are more important for gender, Hardiman pointed to work on different cultures with dramatically different views about gender than.

"Regardless of the prevailing views about gender in a given society, we still find the same types of differences between men and women, which tells us that it is biology that really determines gender."

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## Appendix D

The facts for each condition will be selected from the following options:

### Common across Condition

1. Mount Rushmore, designed as a monument to the first 150 years of American history, took more than 14 years to complete.
2. Ice cream was first made for commercial use in New York City in 1786.
3. In September 1947, Roscoe Hillenkoetter, Naval officer and WWII veteran, was appointed as the first director of the CIA.
4. The California Gold Rush began on January 24, 1848, when gold was discovered by James Wilson Marshall at Sutter's Mill, in Coloma, California.
5. In the early 1900s, President Theodore Roosevelt, with the aid of Chief Forester Gifford Pinchot, worked to preserve more than 170 million acres of national parks.
6. In 1908 researchers at the GE Research Lab in Schenectady, New York patented the first electric toaster.
7. The Homestead Act of 1862 allowed homesteaders to purchase land from the federal government for \$1.25/acre.

### Historical Barriers

1. Women were denied entry into the Modern Olympic Games despite continual petitioning for more than three decades.
2. Secretarial jobs were once seen as high status, high paying positions held predominantly by men. When women began to fill these jobs in

the early- to mid-1900s, the status and compensation of secretaries decreased dramatically.

3. In 1872 Susan B. Anthony was arrested for attempting to vote.
4. Through the majority of the 1900s, women were excluded from medical research, ensuring that the health concerns of men were studied while women's issues were largely ignored.
5. In 1873, Myra Bradwell was denied admission to the Illinois Bar on the basis of her gender despite having completing her legal education and passing Illinois bar exam.

#### Modern Barriers

1. Although women currently make up over half of America's labor force, only 12 Fortune 500 companies and 25 Fortune 1000 companies have women CEOs or presidents.
2. A 2009 study done by researchers at Johns Hopkins found that women are less likely than men to receive kidney transplants, even though they fare as well or better than men their age after a transplant.
3. Somewhere in America a woman is battered, usually by her intimate partner, every 15 seconds.
4. In 2008, women (matched by job, experience, and qualifications) still earned only 77.5 cents for every \$1 earned by men
5. To this day, while most health insurance companies will not cover the cost of women's birth control, men's Viagra is virtually always covered.

### Historical Achievements

1. The American Red Cross was founded in 1881 by nurse and humanitarian Clara Barton.
2. The first program designed to translate text into computer code was developed by female U.S. Naval Officer Grace Murray Hopper.
3. The first Women's Rights Convention was held in Seneca Falls, NY in 1848.
4. In 1916, Jeannette Rankin was the first woman to serve in the U.S. Congress.
5. In 1890 Wyoming became the first state to allow women to vote.

### Control

1. From 1975 to 1978, NASA's *Viking 2* orbited Mars, returning almost 1600 images of the planet's surface.
2. On September 5, 1901, anarchist Leon Czolgosz shot President William McKinley.
3. John Vincent Atanasoff and Cliff Berry invented the first digital computer in 1937.
4. The War Powers Resolution of 1973 was a United States Congress joint resolution providing that the President can send U.S. armed forces into action abroad only by authorization of Congress or if the United States is already under attack or serious threat.
5. The Whiskey Rebellion took place from 1791 to 1794 when a series of uprisings were staged in response to the government's decision to tax whiskey in order to pay off the national debt